What is claimed is:

1. An ultrasonic flow sensor, including
– at least one ultrasonic transducer (A, B) for transmitting and receiving ultrasonic signals (A0, B0), and
– a receiver unit (4) that is connected to the ultrasonic transducer (A, B) and detects a predetermined event (N) of the ultrasonic signal (A0, B0) as the reception time (t_0),
wherein the receiver unit (4) is embodied in such a way that it determines the time (t_1) of a value (Amp_{max}, T_s) characteristic of the ultrasonic signal (A0, B0) and determines the time shift (Δt) of the time (t_1) in relation to the reception time (t_0).

2. The ultrasonic flow sensor as recited in claim 1,
wherein the receiver unit (4) determines a maximum amplitude (Amp_{max}) of the ultrasonic signal (A0, B0) as a characteristic value.

3. The ultrasonic flow sensor as recited in claim 1,
wherein the receiver unit (4) determines the chronological position (T_s) of the focal point of either the ultrasonic signal (A0, B0) or its envelope curve (6) as the characteristic value.

4. The ultrasonic flow sensor as recited in one of the preceding claims,
wherein the receiver unit (4) includes a comparator (10) whose input is supplied with a transducer output signal (5) and a reference signal (SW), and the receiver unit (4) determines a piece of information about the time (t_1) of the characteristic value (Amp_{max}, T_s) from the output signal of the comparator (10).

5. The ultrasonic flow sensor as recited in claim 4,
wherein the reference signal supplied to the comparator (10) is a threshold (SW) not equal to zero and the output signal of the comparator (10) is a pulse width

modulated signal (K1) from which the time (t_1) of the characteristic value (Amp_{max}, T_s) is determined.

6. The ultrasonic flow sensor as recited in one of the preceding claims, wherein the reception time (t_0) is corrected as a function of the time shift (Δt).

7. A method for detection of an ultrasonic signal (A0, B0) in an ultrasonic transducer (A, B) by means of a receiver unit (4), which detects a predetermined event (N) of the ultrasonic signal (A0, B0) as a reception time (t_0), wherein the receiver unit (4) determines the time (t_1) of a value (Amp_{max}, T_s) characteristic of the ultrasonic signal (A0, B0) and determines the time shift (Δt) of the time (t_1) in relation to the reception time (t_0).

8. The method as recited in claim 7, wherein the receiver unit (4) determines a maximum amplitude (Amp_{max}) of the ultrasonic signal (A0, B0) as a characteristic value.

9. The method as recited in claim 7, wherein the receiver unit (4) determines the chronological position of the focal point of the ultrasonic signal (A0, B0) or its envelope curve (6) as a characteristic value.